MULTIMEDIA UNIVERSITY

STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2022/2023

DCS5111 – COMPUTER CONCEPTS & APPLICATIONS

(For Diploma students only)

6 JULY 2023
9.00 a.m - 11.00 a.m
(2 Hours)

INSTRUCTIONS TO STUDENT

1. This question paper consists of 8 pages and 2 sections.
2. Answer **ALL** questions.
3. For Section A, write your answers on the multiple choice answer sheet.
4. For Section B, write your answers in the answer booklet provided.

SECTION A: 20 MULTIPLE CHOICE QUESTIONS [20 MARKS]

1. Which type of display screen is applied on a smartphone that needs less power than a monitor?
   A. Liquid crystal display (LCD)
   B. Light-emitting diode (LED)
   C. Organic light-emitting diode (OLED)
   D. Fluorescent light (FL)

2. Selecting "Restart" from the menu bar and hitting the button is called _____.
   A. cold boot
   B. warm boot
   C. sleep mode
   D. hibernate mode

3. The URL "https://www.ptptn.gov.my/myptptn/" is a website that handles loans and repayments and provides SSPN saving products for higher education purposes. The "my" indicates the _____.
   A. country code
   B. subdirectory
   C. top-level domain
   D. domain name

4. Susan would like to purchase a laptop using Shopee App. Due to her convenience, she placed the order immediately after discussing it with her classmate in MMU campus while her smartphone was connected to the campus Wi-Fi. The transaction was paid by credit card.
   In the above scenario, which could cause the transaction to be unsecured?
   A. Purchasing on Shopee App.
   B. Paying by credit card.
   C. The transaction is safe.
   D. Using public Wi-Fi to perform the transaction.

5. As a research assistant, the project leader assigned Ryan to prepare a demo of their project output related to how a robot learns and communicates with others. Since this demo will be sent to other researchers overseas, he needs to record the demonstration video and include a short presentation to make them interested. The following are the software he needs EXCEPT _____.
   A. digital video-editing software
   B. digital audio-editing software
   C. presentation software
   D. app creation software

Continued.....

6. You are required to prepare a presentation slide using Microsoft PowerPoint. Which of the following should you try to avoid?
   A. Use image to convey the message.
   B. Write the points in a paragraph.
   C. Match dark text with light background.
   D. Apply animation.

7. Given the file path of a document:

E:\DCS5111\Lab Test\Lab Test 1\Question.pdf

What is the file type of this document?
   A. Question
   B. Lab Test 1
   C. Word document
   D. Portable document format

8. Sumitha found that her laptop is getting slower as she has used it since secondary school. Her laptop's specification is listed as follows. What can you advise her to speed up her laptop's performance?

Laptop Model: Acer Display size: 15.6'' Processor: Celeron SSD: 125GB RAM: 4GB

   I. Perform disk cleanup to remove the unnecessary files from the hard disk.
   II. Run disk defragmenter to rearrange fragmented data.
   III. Upgrade the RAM to 8GB.
   IV. Run BIOS to remove the unused files from the hard disk.
   A. III & IV
   B. I & III
   C. I, II & III
   D. All the above

9. Arrange the steps of the machine cycle, which will be performed by the CPU when receiving an instruction.
   I. Store results in one of the registers.
   II. Decode the instruction into commands.
   III. Execute the instruction described in the commands.
   IV. Fetch the instruction from RAM.
   A. II→IV→III→I
   B. I→II→IV→ III
   C. III→I→IV→II
   D. IV→II→III→I

Continued.....

10. Which of the following is a volatile storage?
    I. Read-only memory (ROM)
    II. Solid State Drive (SSD)
    III. Random Access Memory (RAM)
    IV. Digital video disc (DVD)
    A. I, II and IV only
    B. III only
    C. II & IV only
    D. I & III only

11. The following are the benefits of network EXCEPT _____.
    A. can setup in a few minutes
    B. can share Google Forms
    C. can chat with friends
    D. can connect to printers and peripheral devices

12. Which of the following BEST describes backward compatibility?
    A. The current device can use earlier standards.
    B. The older device can use current standards.
    C. The older device can communicate with the new computer.
    D. The current device can communicate with the older computer.

13. What software or platform can be used to scan whether someone has plagiarized?
    A. Online database
    B. Google Scholar
    C. Turnitin
    D. Library

14. A singer allowed a company to use her song as background music for the company's advertisement video for a certain period. What did the company do to get the copyright of the song?
    A. Editing the song's copyright.
    B. Applying copyright of the song.
    C. Renting the copyright of the song.
    D. Renting the copyleft of the company's advertisement video.

15. Kevin Mitnick is a famous cybersecurity expert who is a security consultant to many big companies. He often breaks into his company system without his team's knowledge to test the system's security vulnerabilities. What kind of hacker does he act as?
    A. Colourful-hat hacker
    B. Grey-hat hacker
    C. Black-hat hacker
    D. White-hat hacker

Continued.....

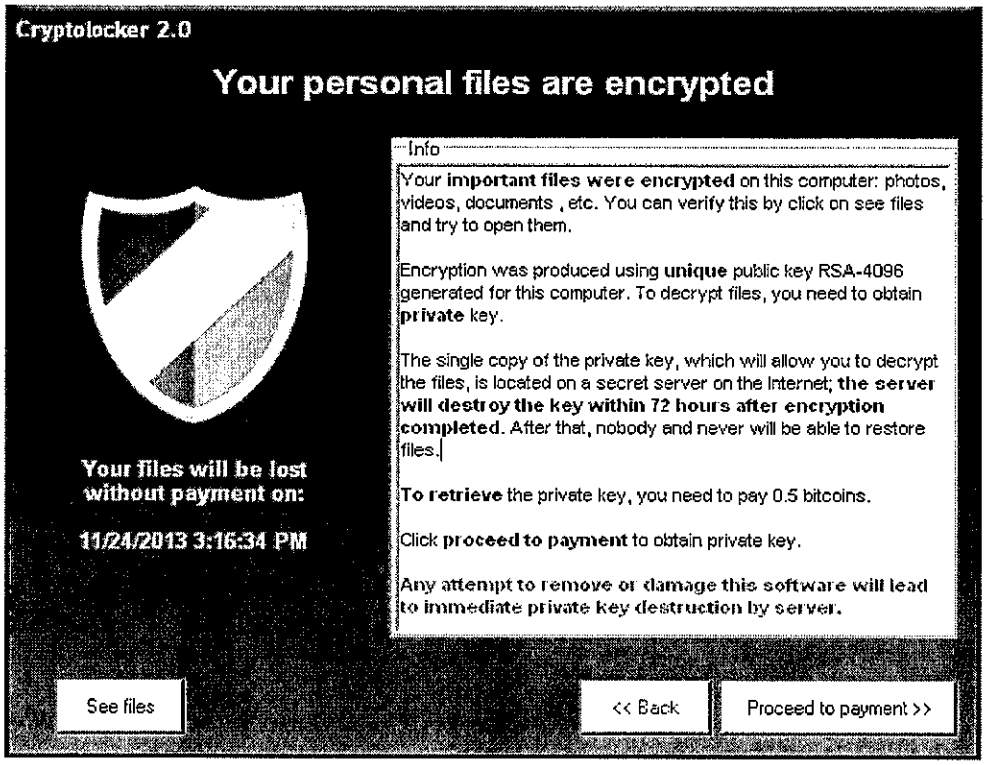
Cryptolocker 2.0
Your personal files are encrypted
Info
Your important files were encrypted on this computer: photos, videos, documents , etc. You can verify this by click on see files and try to open them.
Encryption was produced using unique public key RSA-4096 generated for this computer. To decrypt files, you need to obtain private key.
The single copy of the private key, which will allow you to decrypt the files, is located on a secret server on the Internet; the server will destroy the key within 72 hours after encryption completed. After that, nobody and never will be able to restore files.
To retrieve the private key, you need to pay 0.5 bitcoins.
Click proceed to payment to obtain private key.
Any attempt to remove or damage this software will lead to immediate private key destruction by server.
Your files will be lost without payment on:
11/24/2013 3:16:34 PM
See files
<< Back
Proceed to payment >>

Figure 1

16. The pop-out message shown in Figure 1 indicates that the user would lose the files if he fails to make payment by 24 November 2013. This is a(n) _____.

A. time bomb
B. macro virus
C. ransomware
D. adware

17. All of the following features are suitable to attract younger kids to learn programming languages EXCEPT _____.

A. with command line interface
B. with drag and drop interface
C. with object-oriented language
D. with graphical blocks

18. Which language controls how a web browser will display text and images?

A. JavaScript
B. HTML
C. C#
D. Python

19. An advertising company monitors the number of guests visiting the website and records the number of clicks on the preferred products. Capturing the company website's information about each click the user makes is known as _____.

A. internal sources
B. external sources
C. clickstream data
D. online cookies

Continued.....

20. A database manager creates data storage and manages the databases. If he would like to extract information requested by his staff from the data warehouse, he can use the following method EXCEPT _____.

A. staging
B. filter
C. query
D. sort

SECTION B: 4 STRUCTURED QUESTIONS [20 MARKS]

1. The tables below record the details of publishers which supplies reference books to bookstores in Malacca.

Table 1

Publishers	Printed Books	Electronic Books	Publishers' Website
Pearson	Yes	Yes	https://www.pearson.com.my
Oxford Fajar	Yes		https://cw.oxfordfajar.com.my
Taylor & Francis	Yes	Yes	https://www.tandfonline.com
Springer	Yes	Yes	https://www.springer.com
John Wiley	Yes	Yes	https://www.wiley.com

Table 2

Book Stores	Publisher	Discount
Borneo Book Store	Pearson	20%
	Oxford Fajar	15%
	John Wiley	10%
Popular Sdn. Bhd.	Springer	0.05
	Taylor & Francis	5%
	John Wiley	10%
Resource Centre	Oxford Fajar	15%
	Springer	5%

Based on Tables 1 & 2, copy and fill in the details in the following table.

(5 marks)

	Table 1	Table 2
Type of Database		
Type of Relationship		
Primary Key		
Data Type of Last Column		
Type of Data Validation (Refer ➡)		

Continued.....

2. An app developer would like to develop a new app to replace the current Smart Vehicle Parking (SMV) app, which enables a public user to buy a parking coupon in Malacca. To develop this app, the developer will perform the steps of The Program Development Life Cycle. Arrange the steps and tasks in the correct sequence listed in the box below. (5 marks)

STEPS	TASKS
Testing and Documentation	• Prepare a flow chart or pseudocode.
Describing the problems	• Create an executable program.
Making a Plan	• Program is tested by users.
Debugging	• Provides clear description of tasks to be performed.
Coding	• Find and correct the errors.

STEPS	TASKS
1.	
2.	
3.	
4.	
5.	

Continued.....

3. The Tiger Group recently started their business offering science and technology activities to kids in Malaysia using new technology such as augmented reality, virtual reality and mixed reality. The hands-on activities integrate with the high-tech gadgets developed by this company. The Tiger Group is the first theme park in Malaysia that offers such amazing activities. The design of the new business logo is shown in Figure 2. A short song of about 2.13 minutes was composed, and 4.9 minutes advertising video clip was recorded for advertisement purposes. A mobile app was also developed to ease customers' booking of entrance tickets.

As a company consultant, please advise the company on what intellectual property needs protection and how it can be protected. (5 marks)

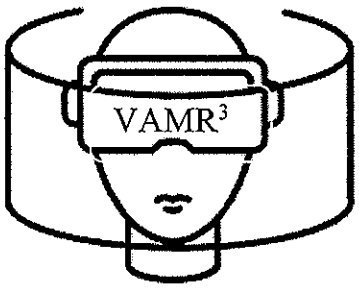

Figure 2

4. Ms Tan received an email from a stranger called Abel Richard inviting her to involve in a profitable business in her country. She feels happy with the business invitation. At the same time, she is worried about whether it is a scam. This email was found in the spam folder, as shown in Figure 3. She wonders why this email went to the spam folder instead of the inbox folder.

Please advise and explain to Ms Tan whether she should reply to this email. Give THREE precautionary steps that she can take to avoid being scammed. (5 marks)

Continued.....

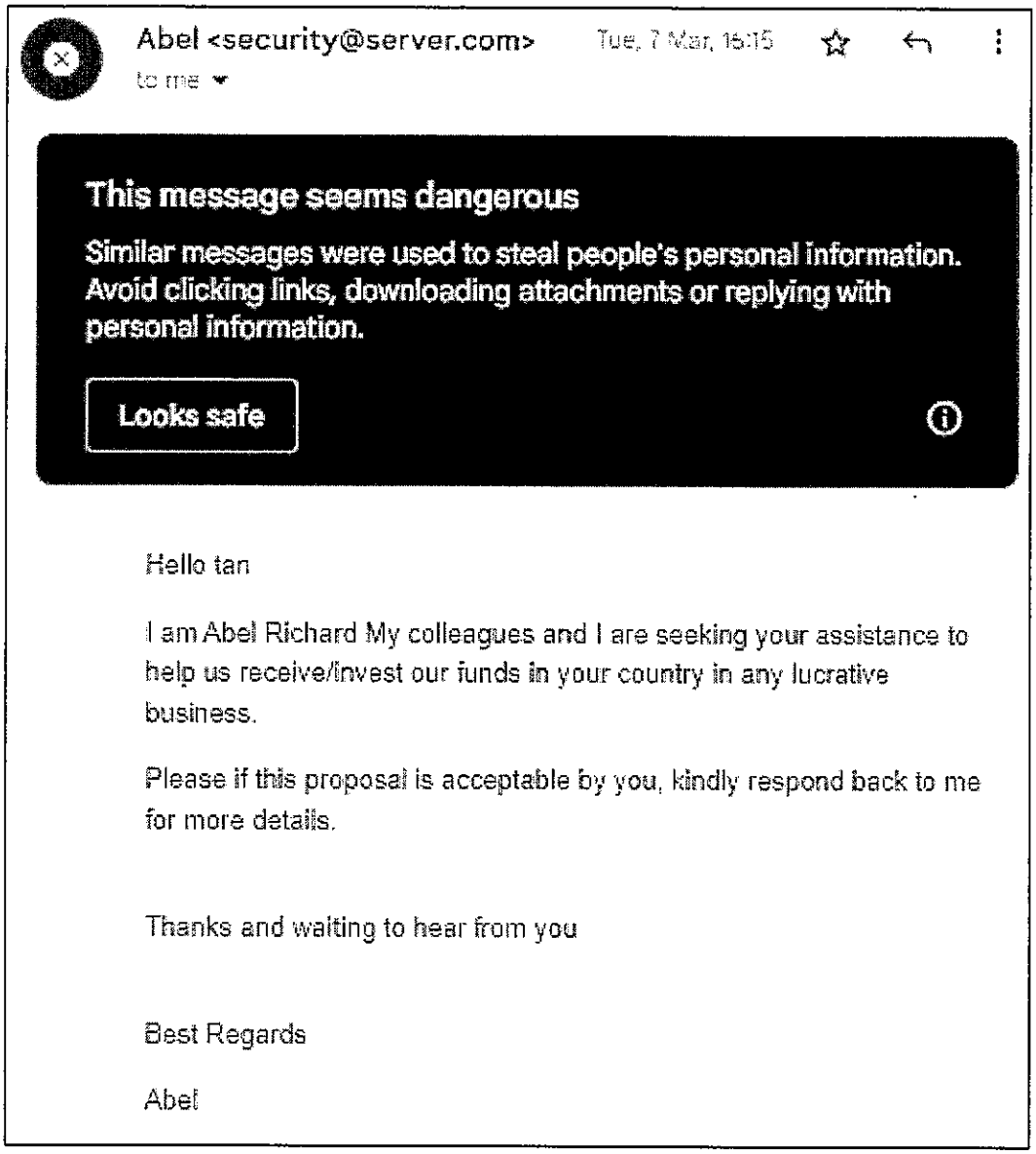
Abel <security@server.com>
Tue, 7 Mar, 15:15
to me
This message seems dangerous
Similar messages were used to steal people's personal information. Avoid clicking links, downloading attachments or replying with personal information.
Looks safe
Hello tan
I am Abel Richard My colleagues and I are seeking your assistance to help us receive/invest our funds in your country in any lucrative business.
Please if this proposal is acceptable by you, kindly respond back to me for more details.
Thanks and waiting to hear from you
Best Regards
Abel

Figure 3

End of Page